

**PROPERTY OF
LIBRARY
STATE OF ALASKA
DIVISION OF
GEOLOGICAL SURVEY**

State of Alaska
Department of Natural Resources
DIVISION OF MINES AND MINERALS

P.O. Box 1391
Juneau, Alaska

MINES AND PETROLEUM BULLETIN

September 1964

Vol. XII

No. 9

MINING ACTIVITIES

Southcentral - Over 300 claims have now been staked by Pan American Oil Company and individuals in the Chenik Mountain area southwest of Anchorage. Authentic reports and samples have not been made available, so the extent and value of the strike is at present unknown by this office.

Southeastern - Activity across the border on the Taku, Stikine, and Unuk Rivers still remains high. The area north and east across the border from Skagway is also drawing more attention.

Representatives of mining exploration companies that have not been active in the State in prior years are beginning to visit this office. This may be an indication of a future increase in exploration activity.

ASSAY OFFICE BACKLOG

As a result of increased field work by this Division's mining engineers and geologists plus the loss of the Anchorage Mines Building, a backlog of samples is beginning to accumulate at the assay offices in Fairbanks and Ketchikan. Each of these offices has about 200 geochem samples and 100 rock samples on hand at the present time. This backlog has increased the normal time lapse in receiving assay results.

OIL NEWS

Drilling Activity:

<u>Operator</u>	<u>Well Name and Number</u>	<u>Status 8/25/64</u>
Pan American Petroleum	Cook Inlet #1-A	Completed
Pan American Petroleum	Middle Ground Shoal #4	Drilling
Pan American Petroleum	Middle Ground Shoal #3	Drilling
Pan American Petroleum	Middle Ground Shoal #6	Drilling
Shell Oil Co. of Calif.	North Cook Inlet #1	Drilling
Union Oil Co. of Calif.	Kasilof #2	P & A
Humble Oil & Refining Co.	Tyonek Reserve #1	Location

Production, Swanson River Field, Hemlock Zone:

	<u>Producing Wells</u>	<u>Oil Barrels</u>	<u>Gas (MCF)</u>
July 1964	55	941,565	269,085
Cumulative to August 1, 1964		34,511,659	7,784,146

Production, Kenai Gas Field:

July 1964	3		231,210
Cumulative to August 1, 1964			7,323,040

Correction: June Cumulative	-----		7,091,830
-----------------------------	-------	--	-----------

Production, Sterling Gas Field:

July 1964	1		4,092
Cumulative to August 1, 1964			99,185

Production, Swanson River Gas Field, Kenai Zone:

July 1964	4		335,399
Cumulative to August 1, 1964			7,560,718

Gas Injection, Swanson River Field, Hemlock Zone:

July 1964	3		489,652
Cumulative to August 1, 1964			10,139,813

During the month a permit to drill was issued to Humble Oil and Refining Company to drill their Tyonek Reserve #1. The surface location is 2078' FNL and 425' FEL, S5, T11N, R11W, SM.

Another permit to drill was issued to Pan American Petroleum Corporation for Middle Ground Shdai #6, 2599' FNL and 1711' FWL, S8, T9N, R12W, SM.

Drilling Active on State-owned Lands:

All four wells presently drilling in Alaska are being drilled or bottomed under State-owned lands. The State is solely responsible for conservation practices on State and private lands, but must also exercise its applicable conservation laws on all Federal lands within the State boundaries. Also of interest is the fact that none of the current wells are subject to unit agreements.

By contrast, in 1959 when the two man Petroleum Branch was activated, all wells were drilled on Federal lands and more than half of the wells were drilled subject to approved unit agreements which help solve spacing and reservoir drainage problems before they start.

Two Conservation Orders Issued During Month:

Emergency Conservation Order #13 allowing Pan American Petroleum Corporation to drill Middle Ground Shoal #6 closer than 500 feet to a projected quarter section line in the waters of Middle Ground Shoal was issued and a permanent order allowing the same is pending. There are no other lease holders within $1\frac{1}{4}$ miles of the location. The spacing exception was requested to allow for sufficient water depth to operate a floating drilling vessel.

Conservation Order #14 was issued to allow Humble Oil and Refining Company to drill the Tyonek Reserve #1 closer than 500 feet to a section line. The petition requested this permission because topographic conditions were not favorable for a satisfactory drill site. There are no other lease holders within a mile of the proposed location.

Discovery Royalty Hearings Last 10 Days:

A hearing was held in Anchorage, August 4 through August 17, by the Division of Lands under the Alaska Administrative Procedures Act in which the Shell-Standard-Richfield group contested the award of a discovery royalty by the State to the Pan American-Skelly-Sinclair-Phillips group on the Middle Ground Shoal #1. The presence of the two man Petroleum Branch was required at these hearings because of the technical nature of the presented material and because the Division of Mines and Minerals shares in the responsibility of making the awards. The Middle Ground Shoal #1 was the first award made and was based only on the Alaska Land Act since our present detailed regulations were not promulgated at the time.

The 5 per cent Discovery Royalty award reduces the State's usual $12\frac{1}{2}$ per cent royalty to 5 per cent on the discovery lease as an exploration incentive. Success of the incentive is indicated in part by the fact that since Statehood, 6 gas fields, a gas-condensate field, and and oil field have been found in Alaska.

GAS NEWS

Negotiations between Chugach Electric Association and Standard Oil Company of California for use of Beluga gas in a generating plant located at the well site is reportedly progressing. CEA is offering a well head price of 15 cents per 1,000 cubic feet. The proposed plant would eventually produce over 100,000 kilowatts of electrical energy.

Marathon Oil Company reportedly has acquired land north of Kenai for use in establishing facilities for reducing gas for transport. Plans for such an operation were announced about a year ago when negotiations were being made to ship the liquified gas to Japan.

Alaska Natural Gas Statistics:

In 1963, according to a report published this week by the U.S. Bureau of Mines, 4,498,000,000 cubic feet of natural gas was produced for market in Alaska. This production had an average value of 24.7 cents per MCF. Gross withdrawals of natural gas in the State consisted of 8.1 billion cubic feet from gas wells and 2.8 billion from oil wells. Disposition of this was made up of 4,498 million cubic feet of marketed production, 6,316 million cubic feet of repressuring and 86 million cubic feet vented and flared.

Residential consumption totaled 685 million cubic feet, commercial 1,614 million cubic feet and industrial 1,915 million. Value of natural gas consumed in Alaska last year totaled \$3,128,000.

NEW PUBLICATIONS

"Mineral and Water Resources of Alaska", a report prepared by the U.S. Geological Survey in cooperation with the State Department of Natural Resources, Division of Mines and Minerals at the request of Senator Ernest Gruening of Alaska of the Committee on Interior and Insular Affairs United States Senate.

This publication contains 179 pages and 17 maps. A chapter, Scope of Report, explains, "the geographic distribution, production, reserves, and future potential of Alaska's minerals, mineral fuels and water resources are summarized. An attempt has been made whenever possible to relate their distribution and character to geologic setting, to provide some background on which to appraise future developments. Only the more significant or best known deposits are covered; no attempt has been made to inventory all known mineral occurrences or to discuss industrial uses of the various commodities.... To provide additional background for the resource evaluations, production figures are given if available and pertinent. In all cases the dollar values indicated are those effective as of the time of production.... The treatment of individual commodities is necessarily brief, but this report is intended to provide a convenient summary and useful reference for anyone interested in Alaskan mineral and water resources. Specific references are cited in the text and selected bibliographies appear at the end of each principal section for those who wish to refer to original sources or seek additional information."

Since we have only a limited number of these available for distribution they will be dispensed on a "first come, first served" basis.

USGS "Preliminary Geologic Map of the Charley River Quadrangle, East Central Alaska," by Earl E. Brabb and Michael Churkin, Jr. This preliminary map is available for consultation only at the various USGS offices and the Division of Mines and Minerals offices throughout the State.

USGS "Professional Paper 501-B", a 190 page volume of 46 separately authored papers on geology and hydrology. Available for \$2.00 from the Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402.

COAL LEASE BIDS

Usibelli Coal Mines, Inc. was the successful bidder at the auction of two tracts of coal land in the Healy River coal field near Fairbanks. Bids for the two tracts totaled \$351,000 after much spirited bidding by Usibelli, Vitro Minerals Corporation and others present at the auction.

E. AND M. J. METAL MARKET PRICES

	<u>August 24,</u> <u>1964</u>	<u>Month</u> <u>Ago</u>	<u>Year</u> <u>Ago</u>
Copper, per lb.	32¢	32¢	31¢
Lead, per lb.	13¢	13¢	11.5¢
Zinc, per lb.	13.5¢	13.5¢	12.5¢
Tin, per lb.	160.4¢	160¢	114.75¢
Nickel, per lb.	79¢	79¢	79¢
Platinum, per oz.	\$87-90	\$87-90	\$77-80
Mercury, per flask	\$295-300	\$279-286	\$183-186
Antimony ore, per unit	\$8.25-9.40	\$8.25-9.40	\$4.25-4.35
Beryllium ore, per unit	Not Quoted	Not Quoted	Not Quoted
Chrome ore, per long ton	Not Quoted	Not Quoted	\$36-38
Molybdenum conc., per lb.	\$1.55	\$1.55	\$1.40
Titanium ore, per ton	\$23-26	\$23-26	\$23-26
Tungsten ore, per unit	\$17-19	\$17-19	\$16-18
Silver, New York, per oz.	129.3¢	129.3¢	129.0¢
Silver, U.S. Treasury, per oz.	129.29¢	129.29¢	90.5¢

1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the study and the objectives of the research. It also provides a brief overview of the methodology used in the study.

2. The second part of the report is a detailed description of the study area. It includes information about the location of the study area, the population of the study area, and the characteristics of the study area.

3. Results and Discussion

3.1. The first result of the study is that the study area is a highly diverse area. It is home to a wide variety of plant and animal species. This diversity is due to the unique combination of factors that have shaped the study area over time.

3.2. The second result of the study is that the study area is a highly productive area. It produces a large amount of food and other resources for the people who live there. This productivity is due to the fertile soil and the abundant water supply.

3.3. The third result of the study is that the study area is a highly resilient area. It is able to withstand a wide range of environmental stresses and still maintain its productivity and diversity. This resilience is due to the ability of the study area to adapt to change.

3.4. The fourth result of the study is that the study area is a highly sustainable area. It is able to provide for the needs of the present without compromising the ability of future generations to meet their own needs. This sustainability is due to the careful management of the study area.